

“Clean Cities University: AFV 101 & 102 Workshop”

Clean Cities Conference
Philadelphia, PA

Al Ebron
Executive Director
National Alternative Fuels Training
Consortium

National Alternative Fuels Training Consortium (NAFTC)



**Headquartered at
West Virginia University**

Al Ebron

**Executive Director
National Alternative Fuels
Training Consortium
1460 Earl Core Road
Morgantown, WV 26505**

304-293-7882 (phone)

304-293-6944 (fax)

aebron@wvu.edu (email)

<http://naftp.nrcce.wvu.edu>

(website)

AFV 101/102

Workshop

Why are We Here Today?

One Reason – Many Americans Drive These?



AFV 101/102

Workshop

Of course, other
countries
have simpler means of
Transportation

Like This



Or This



Or This



Or This



But we have to have these....



AFV 102/102 – Why are We Here Today?



AFV 102/102 – Why are We Here Today?

In the U.S., 199 million cars
burn 4000 gallons of
gasoline
every second !!!

AFV 102/102 – Why are We Here Today?

In transportation alone, we
in the U.S. use 5 million
more
barrels of Oil per day than
we
produce !!!

AFV 102/102 – Why are We Here Today?

The U.S. sends over a
billion dollars a week
overseas for foreign oil
!!!

AFV 102/102 – Why are We Here Today?

Over 56 million Americans
live in areas where smog is
a problem !!!

AFV 102/102 – Why are We Here Today?

Two-thirds of the US population
breaths air above safe emission
levels, according to the
American Lung Association !!!

AFV 102/102 – Why are We Here Today?

An estimated \$45 billion
dollars is spent annually on
health care in U.S. as a result
of air pollution !!!

AFV 102/102 – Why are We Here Today?

**Now, let's talk about a
solution:**

**Alternative Fuel
Vehicles or AFVs**

AFVs - Overview

■ What are AFVs?

- Vehicles that run on fuels that are “substantially not petroleum” (EPACT)
- These fuels include:
 - Natural Gas
 - Electricity
 - Propane
 - Biodiesel
 - Alcohol Fuels such as Ethanol or Methanol
 - Hydrogen
 - Coal-derived Liquid Fuels
 - Fuels other than alcohols derived from biological materials such as vegetable oil-based fuels

National Alternative Fuels Training Consortium (NAFTC)

The NAFTC is a Nationwide Consortium consisting of a group of partners dedicated to developing and delivering training and awareness activities about Alternative Fuel Vehicles (AFVs)

National Alternative Fuels Training Consortium (NAFTC)

The NAFTC partners include:

- **West Virginia University**
- **National Training Centers**

National Alternative Fuels Training Consortium (NAFTC)

The NAFTC partners include:

- **Affiliate Members**
- **Associate Members**
- **Other Partners**

NAFTC Program Goal

- **To establish a national pool of trained automotive technicians skilled in the operation, maintenance and safety procedures of Alternative Fuel Vehicles**

NAFTC Training Audience

- **Automotive instructors from community colleges, vocational/technical institutions and other educational institutions**
- **Fleet managers and motor pool trainers**

NAFTC Training Audience

- **Automotive dealership technicians (OEM)**
- **Automotive technicians (OEM customers, independents, etc.)**
- **Industry and trade representatives**
- **Others interested in AFV training**

Training Services Offered by NAFTC

- **Initial training for automotive instructors in core curriculum**
- **Follow-on training for automotive instructors in advanced curriculum**

Training Services Offered by NAFTC

- **Training partnerships**
- **Assistance to instructors
in program
implementation**
- **Continuing education**

NAFTC Example Customers

- Companies who have attended NAFTA Training:
 - US Department of Energy/Clean Cities Program
 - US Environmental Protection Agency
 - US Postal Service
 - US Air Force, US Army
 - NASA

NAFTC Example Customers

- Companies who have attended NAFTA Training:
 - OEMs such as Ford, GM, Honda,
 - Utilities, City, State & Federal Government, Universities, transit agencies and others
 - Ryder Trucks, Snap-On Tools and other industries
 - Taipei, Taiwan industry and government representatives

Training Curriculum/Programs (Current)

NAFTC Offers:

- **Overview of Alternative Fuel Vehicles**
- **Natural Gas Vehicles: System Integration and Service**
- **Natural Gas Vehicles: CNG Cylinder Inspection and Certification**

Training Curriculum/Programs (Current)

NAFTC Offers:

- **Propane Vehicle Training**
- **Transient Emissions Training**
- **Forklift and Material Handling
AFV Applications**

Training Curriculum/Programs (In Development)

NAFTC Will Offer:

- **Heavy Duty Gaseous Fuel Applications
(new for 2001)**
- **LNG Overview (new in 2001)**
- **On-Board Diagnostics II (new in 2001)**

Training Curriculum/Programs (In Development)

NAFTC Will Offer:

- **Stationary Unit Applications
(new in 2001)**
- **Electric/Hybrid Vehicles Overview
for
Technicians and Fleet Managers
(new in 2001)**
- **Ethanol Vehicle Overview for
Technicians
(new in 2001)**

Training Services - Manual (Instructors & Technicians)



NAFTC NTC Sites



National Alternative Fuels Training Consortium

... because clean air matters

<http://naftp.nrcce.wvu.edu>



Members – US National Training Centers

- **Bronx Community College** **Bronx, NY**
- **Community College of Baltimore, MD**
Baltimore County –
Catonsville Campus
- **Central Community College**
Columbus, NE
- **College of the Desert** **Palm**
Desert, CA

Members – US National Training Centers

- **Gateway Comm. College** **North Haven, CT**
- **GateWay Comm. College** **Phoenix, AZ**
- **Ivy Tech State College** **Gary, IN**
- **Lansing Comm. College** **Lansing, MI**
- **Louisiana Tech. College** **Baton Rouge, LA**
- **New England Inst. of Tech.** **Warwick, RI**

Members – US National Training Centers

- **University of Northwestern** **Lima,**
OH
Ohio
- **Onondaga Comm. College**
Syracuse, NY
- **Portland Comm. College** **Portland, OR**
- **Ranken Technical College** **St.**
Louis, MO
- **Tarrant County College** **Ft. Worth, TX**

Members – US National Training Centers

- **Weber State University Ogden, UT**
- **Wentworth Inst. of Tech. Boston, MA**
- **Traviss Technical Center Lakeland, FL**
- **York Technical College Rock Hill, SC**
- **West Virginia University, Morgantown, WV
(Headquarters for NAFTC & NAFTL)**

NAFTC Training Availability

- **AFV Training is available at this time by:**
 - **Attending any course offerings at our National Alternative Fuels Training Laboratory,
West Virginia University**
 - **Traveling to any of our National Training Centers throughout the United States**
 - **Designing specific AFV Course for a customer**

Note: Specific training availability varies at each NTC

Contact the NAFTC for
More Information

**National Alternative
Fuels Training
Consortium**

**West Virginia
University**

<http://naftp.nrcce.wvu.edu>

Today's NAFTC Team

- Al Ebron, West Virginia University
- Dennis Smith, US DOE, Clean Cities
- Ric Glenn, West Virginia University
- Ed Farrell, Wentworth Institute of Tech.
- Nick Wagoner, Central Comm. College
- Bob Kosak, York Technical College
- Collin Messer, College of the Desert

On with the
Program....